

itron[®] Vacuum Fluorescent Display

Version

00

Rev.

Specification
of
Vacuum Fluorescent Display

Type Name: FG166A2Spec. No.: FG166A2-2A00Discontinued

Revision

Ltr	Date	Description	Chk	Apprvd
1A	01/26/80	Initial issue of final specification.		
2A	01/05/88	(1)Ef 4.77/5.30/5.83 Vac → 4.8/5.3/5.8 Vac If 33.3/37.0/40.7mAac → 33.0/37.0/41.0mAac (2)ic -/5.0/10.0 mAp-p → -/3.0/6.0 mAp-p ib -/4.0/8.0 mAp-p → -/3.0/6.0 mAp-p (1),(2)....Adjustment	T. O'Leary	

Applicable Document

Following documents are a part of this specification. When a conflict between this specification and the following documents is found, the requirements in this specification shall be applied.

PM3011 : Quality specification 'itron' vacuum fluorescent display.

Class I environmentals shall be applied.

Sheet	1	2	3	4															
Revision																			

ISE ELECTRONICS CORPORATION
Quality Assurance Div.
Products Engineering Dept:

P.O.Box 46, Ise, Mie, Japan

DRW

CHK

APRD

APRD

Sheet 1 of 4

Form No. PM7530

itron® Vacuum Fluorescent Display

Type Name

FG166A2

Date 01/05/88

No. 2A00

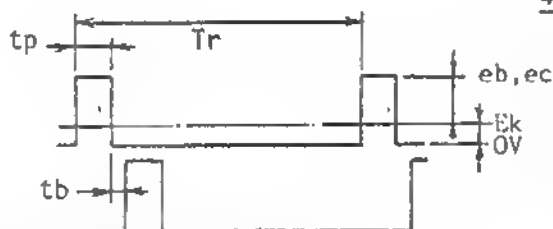
SpecificationDiscontinued1. Ratings

		Minimum	Typical	Maximum	Unit
Operating Temperature	To	-10	-	+55	°C
Storage Temperature	Ts	-20	-	+70	°C
Filament Voltage	Ef	4.8	5.3	5.8	Vac #1
Grid Voltage	ec	-	35.0	42.0	Vp-p #2
Anode Voltage	eb	-	35.0	42.0	Vp-p #2
Color of Illumination:	Blue-green				

2. Electrical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Filament Current	If	Ef= 5.3 Vac #1 eb=ec= 0V	33.0	37.0	41.0	mAac
Grid Current #3	ic	Ef= 5.3 Vac #1 ec= 35.0 Vp-p#2 eb= 35.0 Vp-p#2	-	3.0	6.0	mA _{p-p}
Anode Current #3	ib	Outy= 1/20 tp= 100 μ sec.	-	3.0	6.0	mA _{p-p}
Luminance	L		150	-	-	fL
Grid Cut-Off Voltage #4	Ecco	Ef= 5.3 Vac #1 Eb= 35.0 Vdc	-5.0	-	-	Vdc
Anode Cut-Off Voltage #4	Ebco	Ef= 5.3 Vac #1 ec= 35.0 Vp-p#2	-3.0	-	-	Vdc

3. Note
- #1: Effective value at 50 or 60 Hz sine-wave.
 - #2: Peak-to-peak voltage.
 - #3: Unless specified, the anode and grid current is measured per each grid, when all anodes turned on.
 - #4: With respect to the filament center-tap.

4. Recommendation

Ef= 5.3 Vac (Sine-wave or pulse)
 Ek= 5.0 Vdc (Cathode bias)
 eb=ec= 35.0 Vp-p
 Duty = $tp/Tr = 1/20$
 tp= μ sec.
 tb= μ sec. (Interdigit blanking)

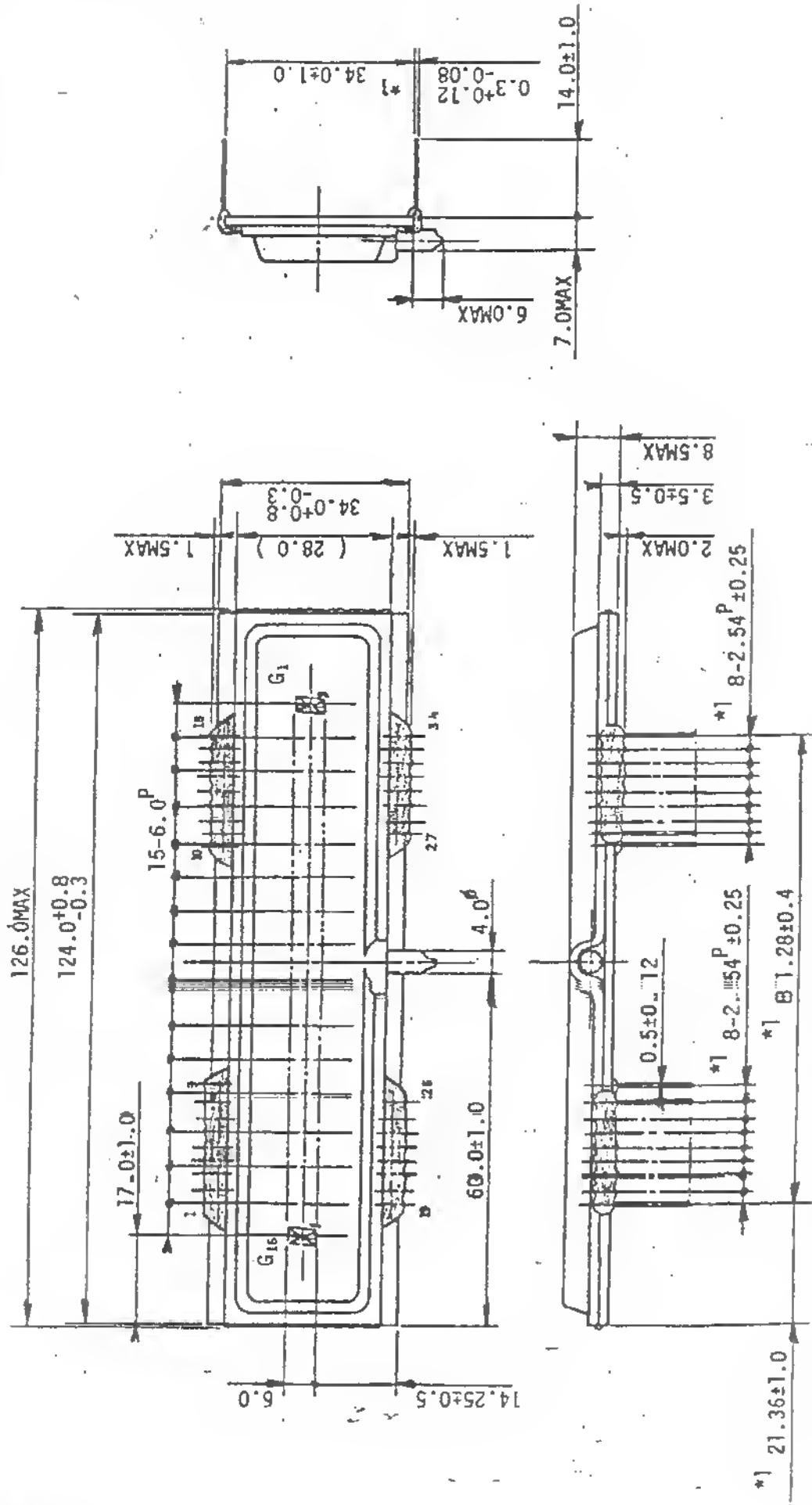
This specification is subject to change without notice. 04-2-108.5A AG

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Sht 2 / 4 Form#PM7520

SHEET 3/4
No. 0-T-1142R
UNIT : mm
() : Reference only.

TYPE : FG166A2

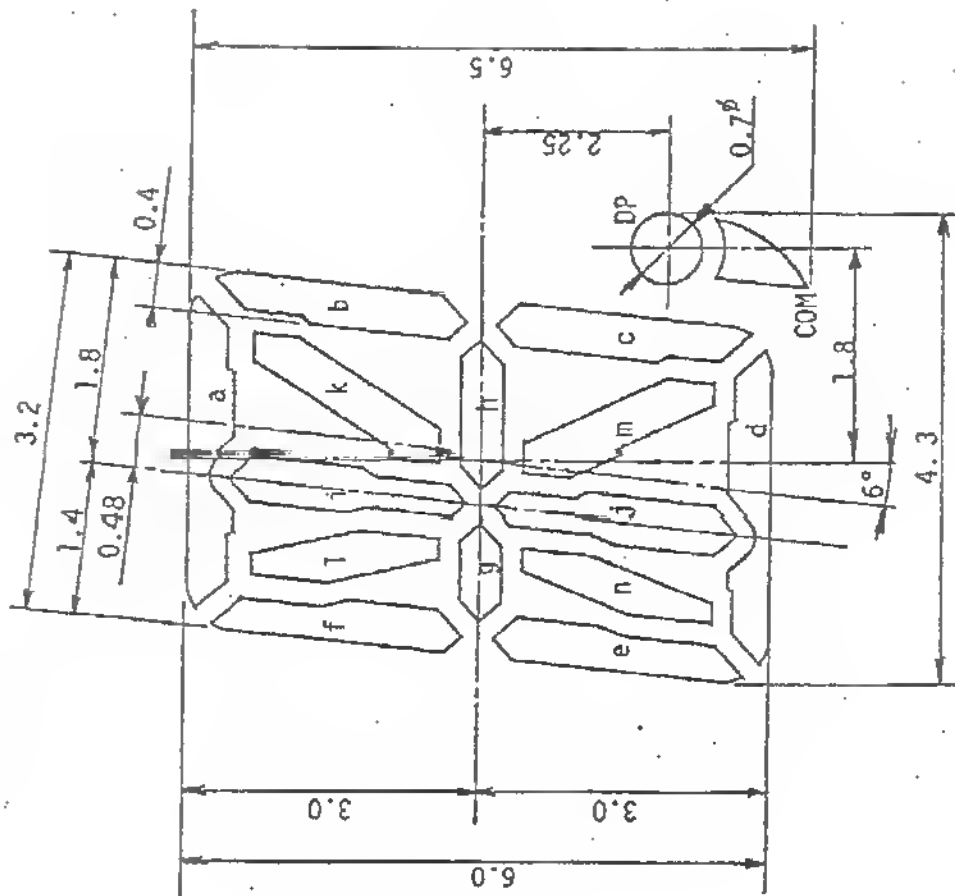


NOTE

- *1 Within 3 mm from bottom of the glass substrate.
- *2 Both ends difference of dimension due to face glass slant not exceed ± 1.2 mm.

FG166A2 : Character Pattern & Pin Connection

SHEET 4/4
UNIT : mm



PIN CONNECTION

PIN No.	CONNECTION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
F	P _d	P _j	P _m	P _n	P _c	P _γ	P _k	P _i	P _a	P _b	P _f	P _g	P _h	P _e	P _{DP}	P _{COM}	F	G ₁₆	G ₁₅		
G ₁₄	G ₁₃	G ₁₂	G ₁₁	G ₁₀	G ₉	G ₈	G ₇	G ₆	G ₅	G ₄	G ₃	G ₂	G ₁								